Amendments to the Abstract

Please replace the previous Abstract with the following:

[0055] A Reduced State Sequence Equalizer (RSSE) is implemented using a butterfly hardware accelerator (58) in the form of a butterfly to increase the efficiency of computing branch metrics (24) and the ACS (add, compare and select) function (26). Multiple path metrics between a first state and a second state may be computed responsive to the received symbols and reference constellation symbols and determining a best scenario at the second state using said butterfly circuitry. The received symbols may be rotated by a predetermined angle for computation of all minimums of two cosets in an 8-PSK constellation.